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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,547	07/30/2003	Patrick A. C. Gane	239126US0CONT	6504
22850 7590 12/05/2007 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER CORDRAY, DENNIS R	
			ART UNIT	PAPER NUMBER
			1791	
			NOTIFICATION DATE	DELIVERY MODE
			12/05/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/629,547

Applicant(s)

GANE ET AL.

Examiner

Dennis Cordray

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-13,16-29,33-49,51,53 and 61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,3,5-7,24-28 and 37-41 is/are allowed.
- 6) ☒ Claim(s) 8,9,20,21,23,25,29,35 and 46 is/are rejected.
- 7) ☒ Claim(s) 10-13,16-19,22,33,34,36,42-45,47-49,51,53 and 61 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's amendments filed 10/5/2007 have overcome the previous rejections over prior art except Claims 8, 21, 23 and 35. However, due to the amendments and upon further consideration, new grounds of rejection are made as detailed below.

Claim Objections

2. Claims 33-34 and 48 are objected to because of the following informalities:

In Claims 33-34., the word "comprise" should be "comprises."

In Claim 48, the word "treaded" in line 4 is misspelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 9, 29 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 9 recites "semi-treated natural calcium carbonate (CaCO₃) treated only with water whose pH, when measured at 20° C, is greater than 7.5". There is no discussion in the instant Specification of a "semi-treated natural calcium carbonate

(CaCO₃) treated only with water whose pH, when measured at 20° C, is greater than 7.5". Page 15, lines 1-2, page 16, lines 29-30 and page 48, line 31 to page 49, line 2 recite a control paper manufactured in the same manner with non-treated filler.

Claim 29 recites a composition comprising the aqueous suspension as claimed in Claim 1 and a paint or coating. Claim 46 recites a composition comprising a paint or coating and the aqueous dispersion of Claim 24. The abstract of the instant Specification recites that the treated aqueous suspension is used as a pigment or coating filler for paper. Test 12 on pp 28-29 recites coating a base with a coating color at low concentration of filler treated according to the invention. Test 27 on pp 45-46 and Example 4 on pp 49-50 recite a coating, the dry matter of which is 100 pph of treated or untreated pigment, 12 pph latex and 0.5 pph carbocymethyl cellulose (p 46, lines 256-27; p 50, lines 13-15). Example 8 on pp 62-64 recites a paint comprising the treated pigment, latex and other additives. In each example, the filler or paint comprises the treated or non-treated pigment as an integral part thereof. There is no disclosure of a separate paint or coating that does not comprise the pigment.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 20, 25 and 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the third stage of treatment" in Claim 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "the aqueous suspensions" in Claim 1. There is insufficient antecedent basis for this limitation in the claim as Claim 1 only recites a single aqueous suspension.

Claim 46 recites the limitation "the aqueous dispersion" in Claim 24. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites additional treatments and stages after the third stage of treatment in the process of Claim 11. Claim 11 recites stages a), b) and c), with stage c) being the final stage in the process. It is not clear which stage is intended to be the third stage. If stage c) is presumed to be the third stage, then it is further not clear how additional stages and treatments can included when stage c) is the final stage.

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 21 and 35 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Passaretti (5043017) as evidenced by Plumstead (2178606).

The disclosures of Passaretti and Plumstead have been detailed in previous Office Actions.

Claim 21 is a product-by-process claim. The product of Passaretti appears to be the same as or similar to the claimed product, an aqueous suspension comprising

natural calcium carbonate treated with phosphoric acid and carbon dioxide, although produced by a different process.

Claim 35 is also a product-by-process claim. The product of Passaretti appears to be the same as or similar to the claimed product, paper comprising natural calcium carbonate treated with phosphoric acid and carbon dioxide, although produced by a different process.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). "The Patent Office bears a lesser burden of proof in making out a case of prima facie obviousness for product-by-process claims because of their peculiar nature" than when a product is claimed in the conventional fashion. In re Fessmann, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974). Once the examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. In re Marosi, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). "In the event any differences can be shown for the products of the product-by-process claims 21 and 35 as opposed to the products taught by the reference Passaretti, such

differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results: see also *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985)." The product of Passaretti has not been compared to that of the claimed invention, thus a showing of unexpected results thereover has not been made.

6. Claims 8 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Passaretti in view of Stewart et al (4732748).

Claims 8 and 23 are a product-by-process claims. Passaretti does not disclose drying the treated CaCO_3 containing aqueous suspension.

Stewart et al discloses a finely divided CaCO_3 opacifying filler in papermaking that is useful as an aqueous slurry (suspension) or as a dry filler (Abs). The filler can be shipped and stored as an aqueous suspension or as a filter cake, centrifuge cake or spray dried powder (col 4, lines 25-30).

The art of Passaretti, Stewart et al and the instant invention is analogous as pertaining to the use of CaCO_3 as a filler in papermaking processes. It would have been obvious to one of ordinary skill in the art to dry the treated CaCO_3 containing suspension of Passaretti in view of Stewart et al to provide a shippable or storable product having lower weight and volume, thus having lower shipping and storage cost.

The product of Passaretti in view of Stewart et al appears to be the same as or similar to the claimed product, a dried product comprising natural calcium carbonate treated with phosphoric acid and carbon dioxide, although produced by a different

process. For reasons given above, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claim 33 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 26. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Both claims recite a process comprising making paper with an aqueous mixture made by diluting wood (inherently comprising cellulose fibers) and fiber pulp or paste in the presence of the aqueous suspension of Claim 1.

8. Claim 61 is objected to under 37 CFR 1.75 as being a substantial duplicate of Claims 48 and 51. When two claims in an application are duplicates or else are so

close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 61 recites a process for manufacturing a sheet of paper or board by diluting a pulp or paste in water (aqueous suspension) in the presence of the pigment, filler or mineral of Claim 21, agitating the mixture and forming a paper. Claim 21 recites an aqueous suspension comprising treated pigments, fillers or minerals. Thus Claim 61 recites forming a paper from an aqueous suspension of pulp or paste and treated pigments, fillers or minerals. Claims 48 and 51 carry the same limitations and are directed to forming a paper or a board, respectively, which are the alternatives in Claim 61.

Allowable Subject Matter

9. Claims 1, 3, 5-7, 24-28 and 37-41 are allowable.

Claims 10-13, 16-19, 22, 36, 42-45, 47, 49, 51, 53 and 61 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 20 and 25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance: The nearest prior art that comprises acid and CO₂ treatment of carbonates discloses only small

quantities of acid in the process, [i.e.- less than 6 percent of the amount of CaCO_3 (Passaretti, Fig. 3 and col 4, lines 38-41), which also corresponds to about 0.06 moles of acid per mole of CaCO_3]. The use of larger relative amounts of acid is not anticipated by the prior art. Passaretti teaches that calcium carbonate decomposes in an acidic environment, thus it would not have been obvious to one of ordinary skill in the art to use acid in amounts greater than that disclosed by Passaretti to prevent creating an acidic environment.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Cordray whose telephone number is 571-272-8244. The examiner can normally be reached on M - F, 7:30 -4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/629,547
Art Unit: 1791

Page 10

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


DRC


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700